

DETAILS FOR SPEED FRAMES.

JOHN HETHERINGTON & SONS, Limited,
MANCHESTER.

SPECIAL
COLL
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1890z

DETAILS FOR SPEED FRAMES.

JOHN HETHERINGTON & SONS,
LIMITED,

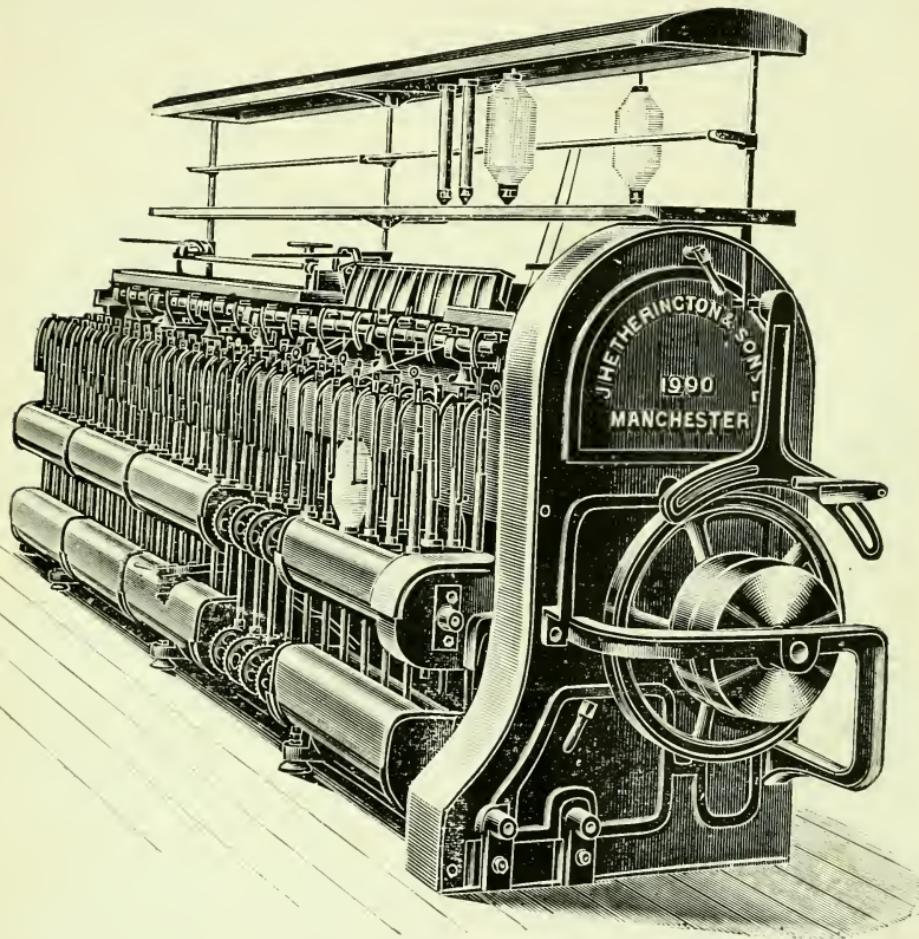
Makers of all kinds of
Cotton Opening, Scutching, Carding, Preparing,
Spinning and Doubling Machinery, also
Engineers' Tools, Mill Gearing, Hoists, etc.

POLLARD STREET, ANCOATS,
MANCHESTER.

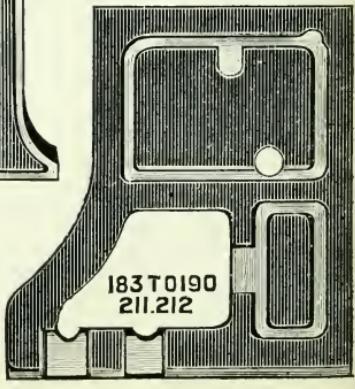
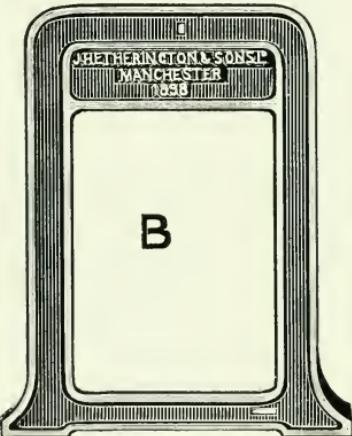
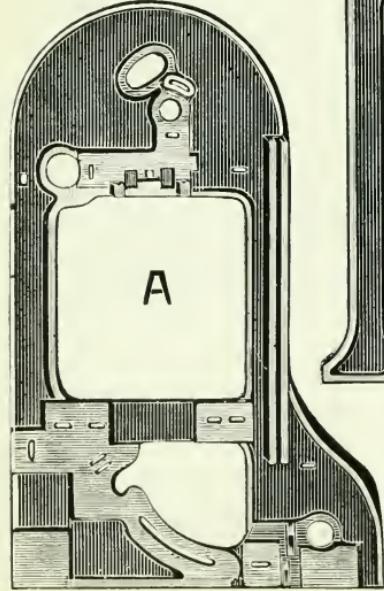
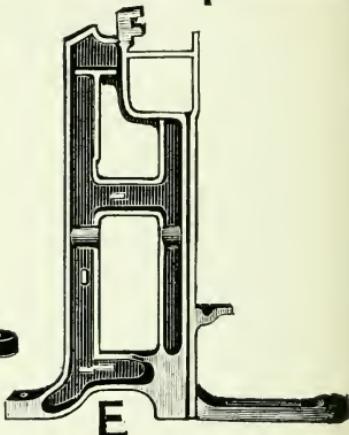
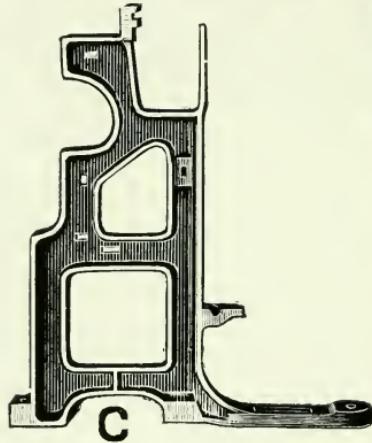
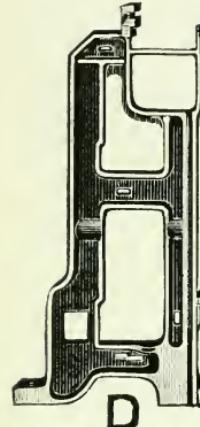
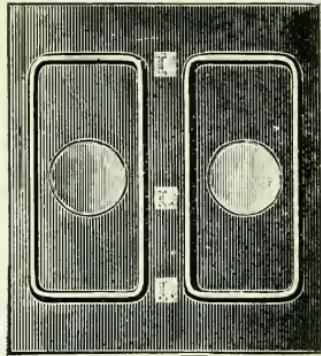
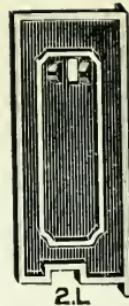
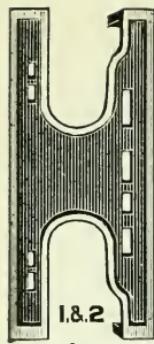
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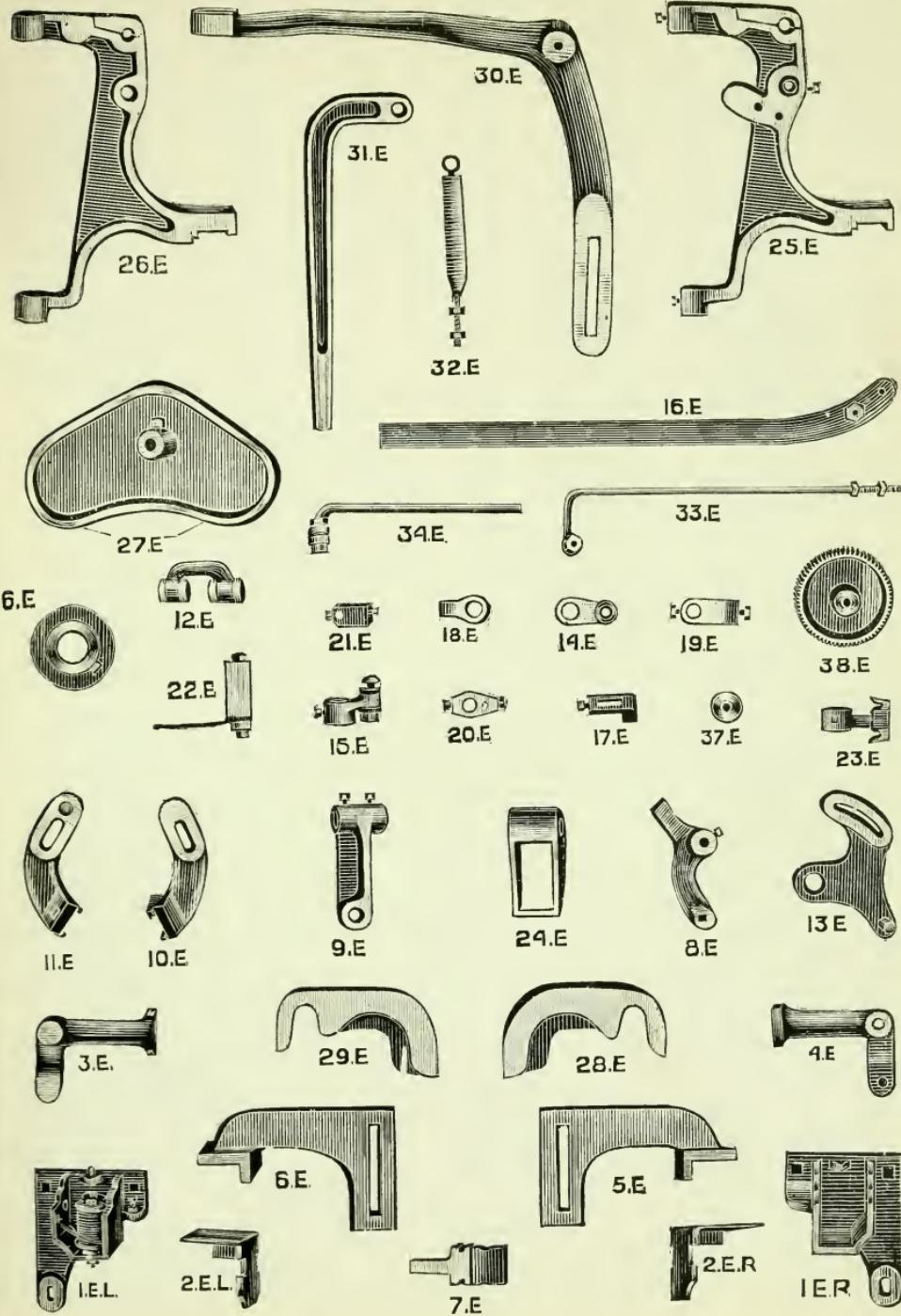
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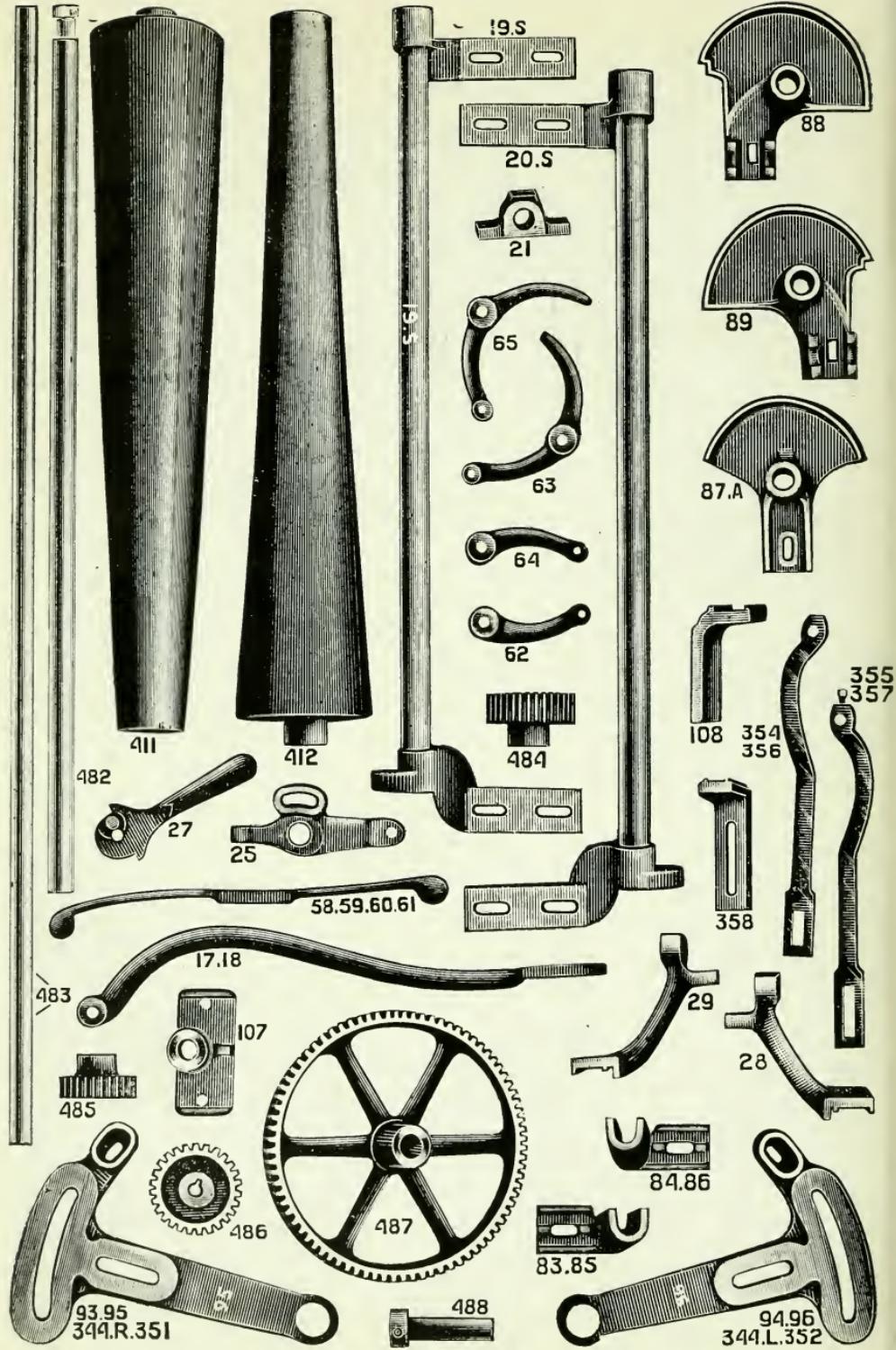
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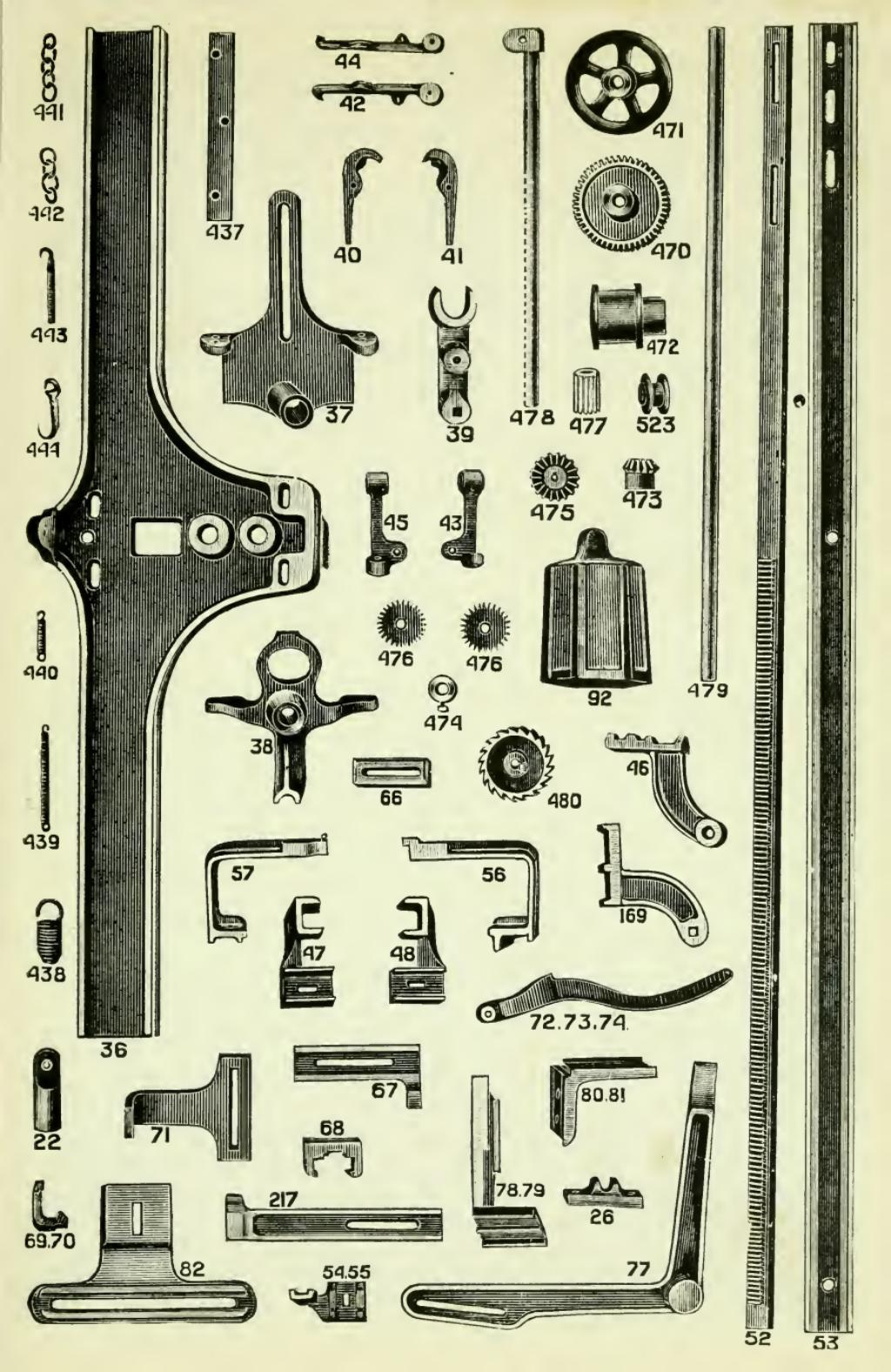


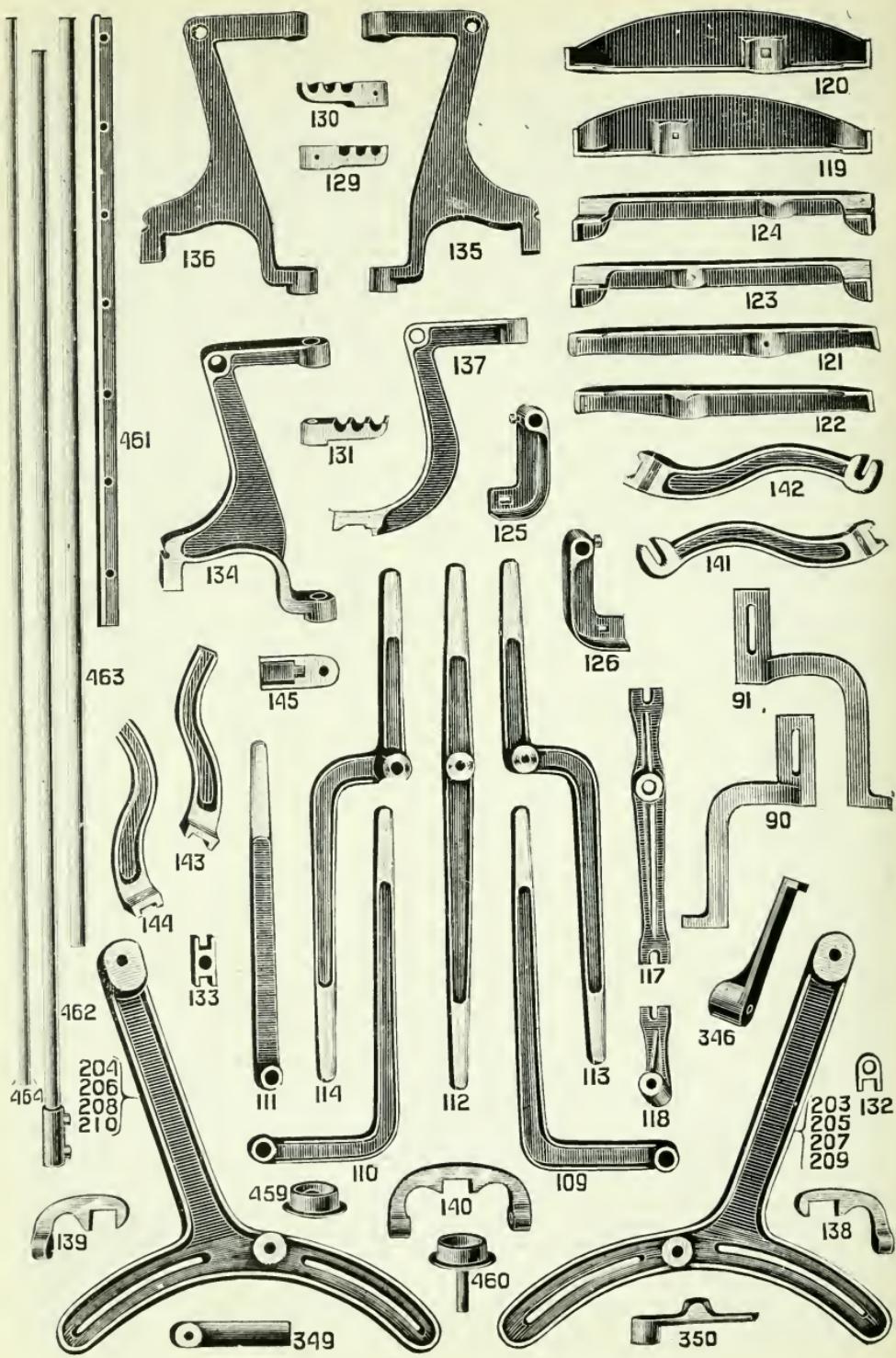
SPEED FRAME

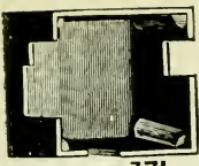












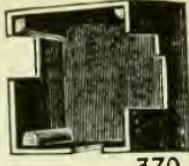
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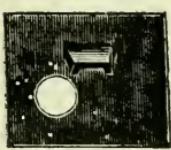
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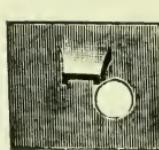
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521



377



3.L



6.L



5.L

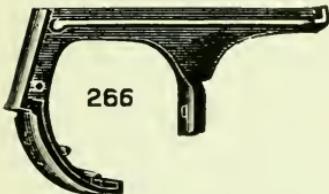


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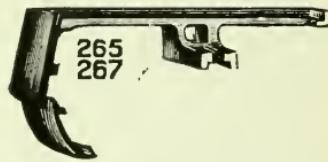
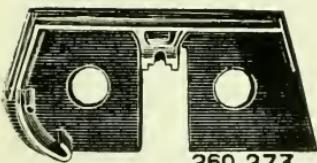


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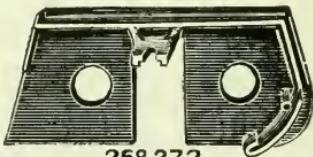
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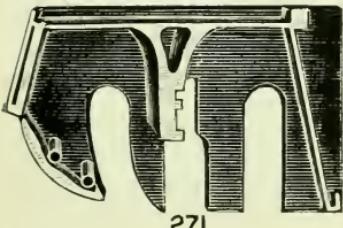
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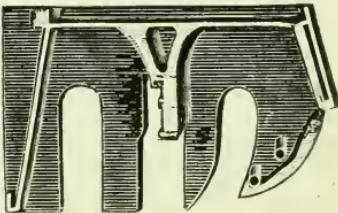
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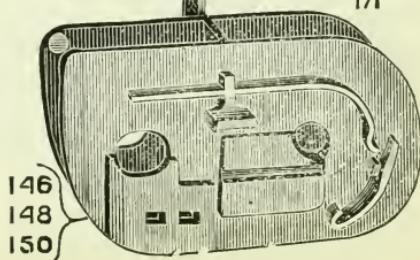
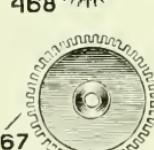
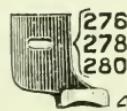
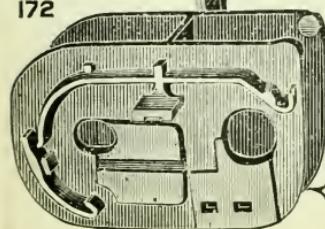
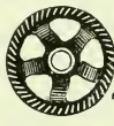
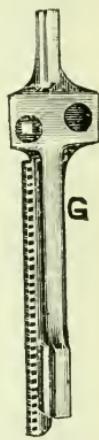
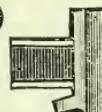
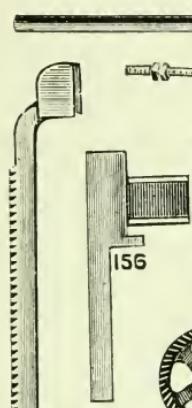
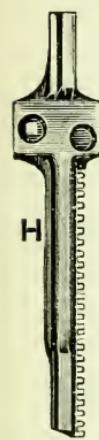
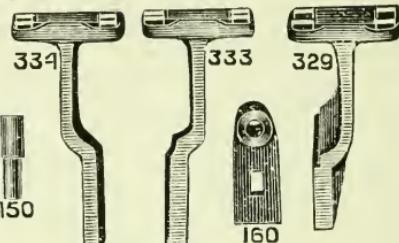
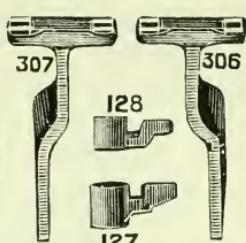
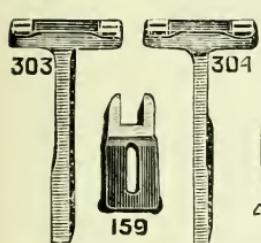
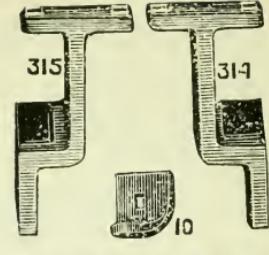
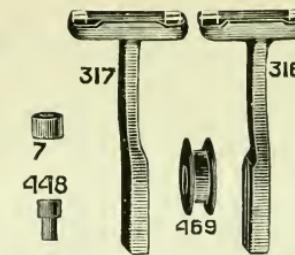
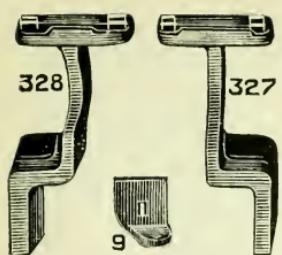
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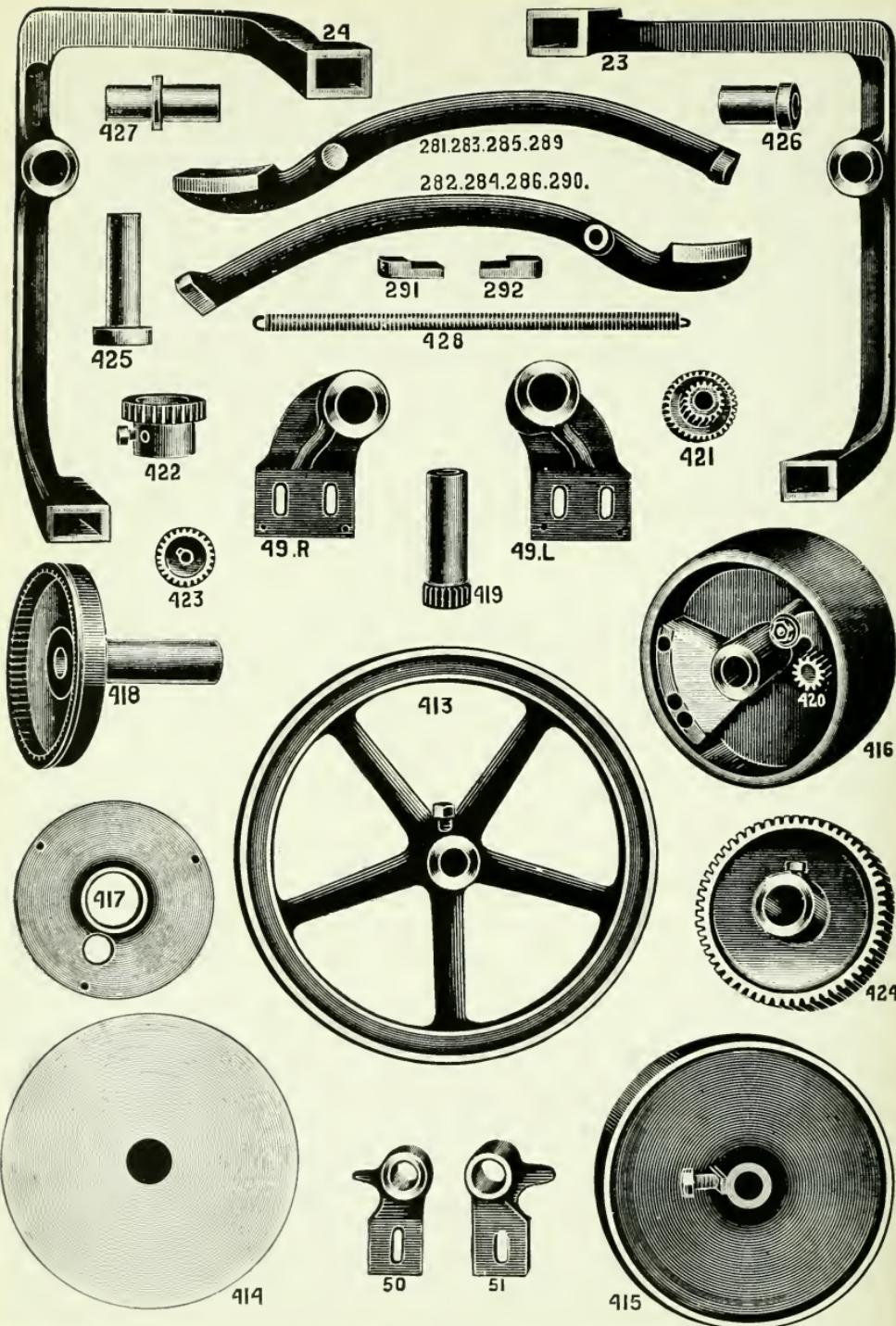


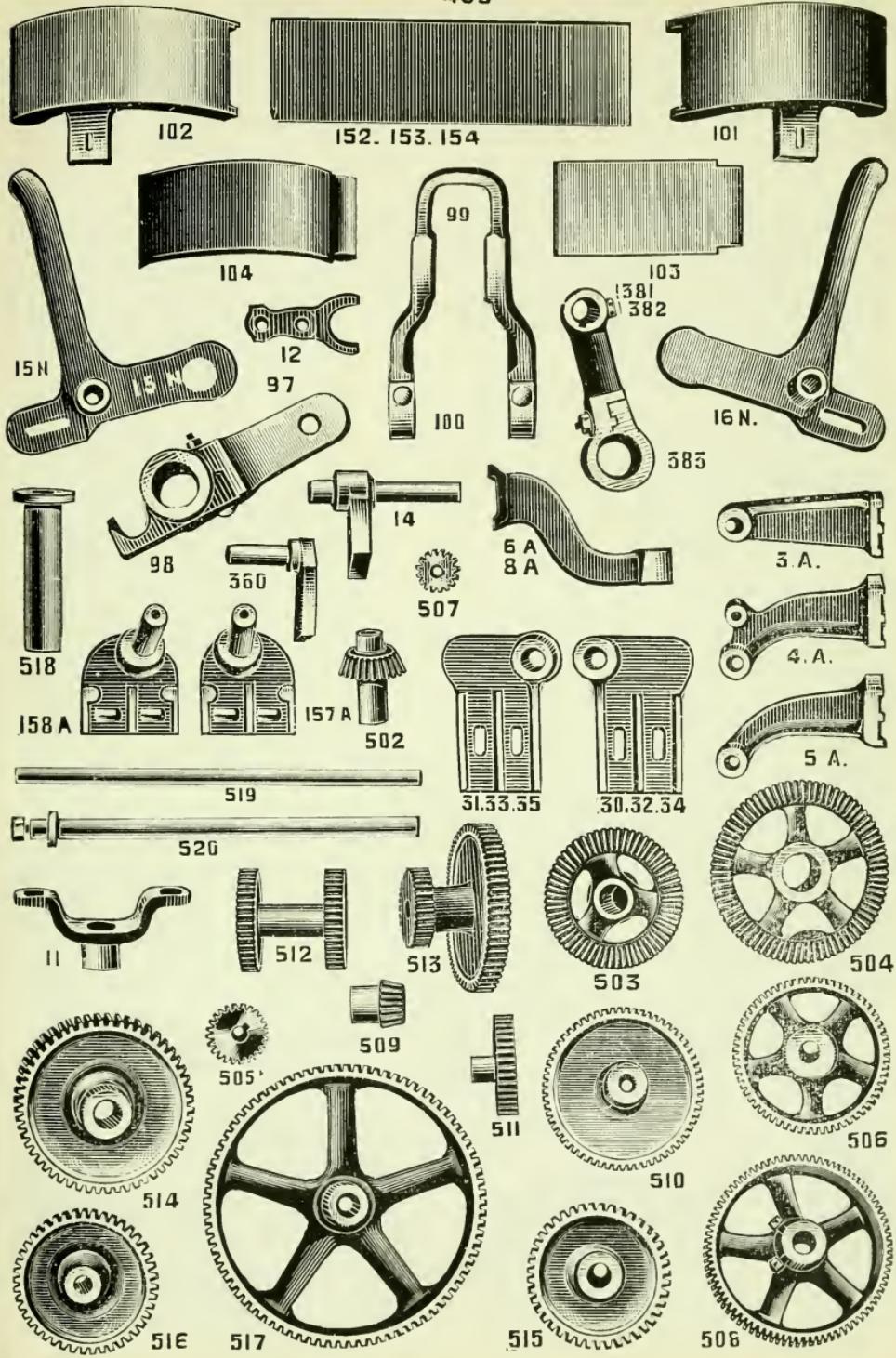
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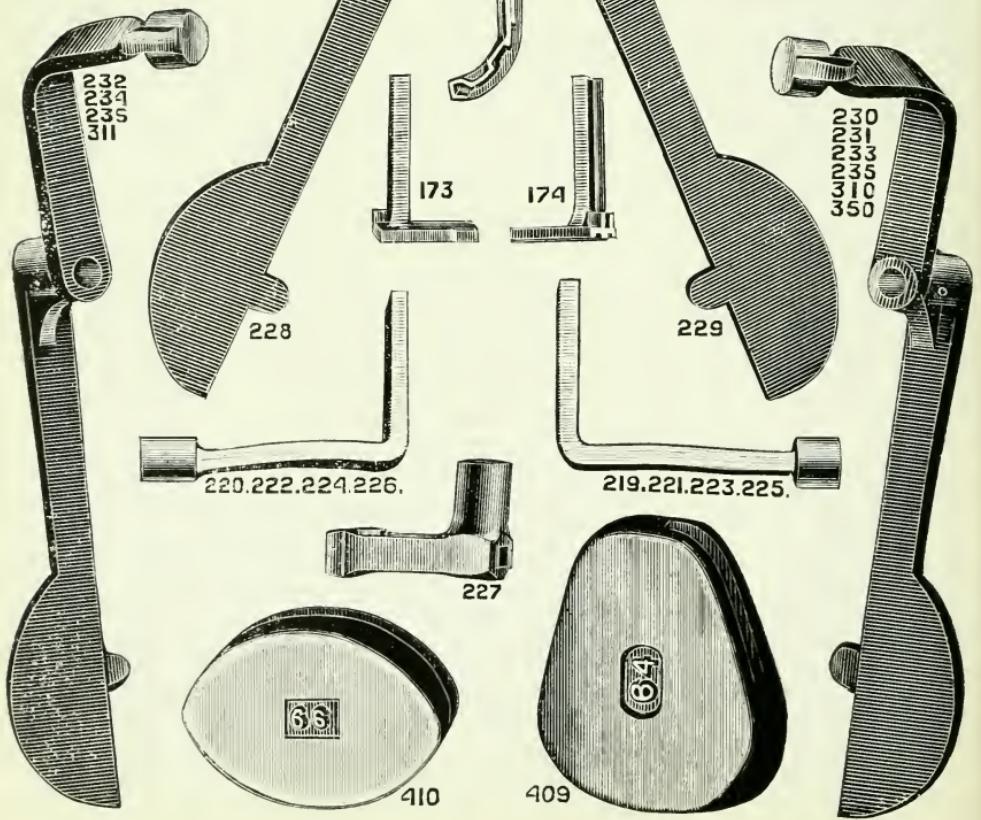
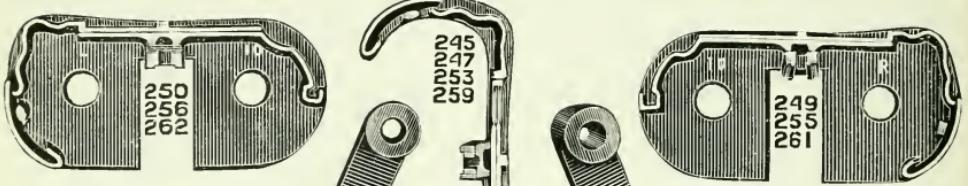
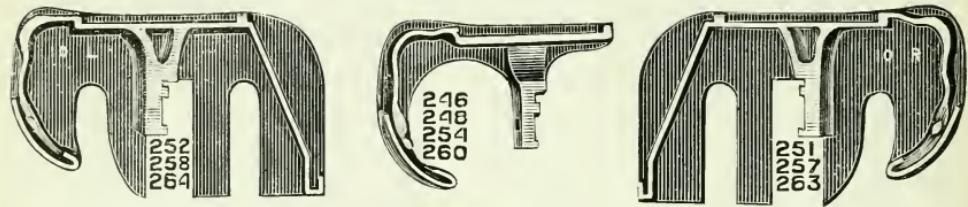
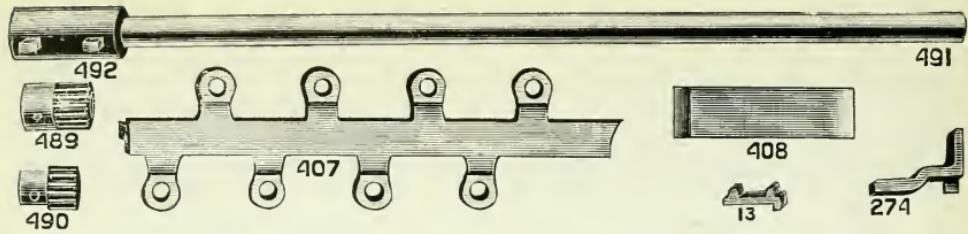


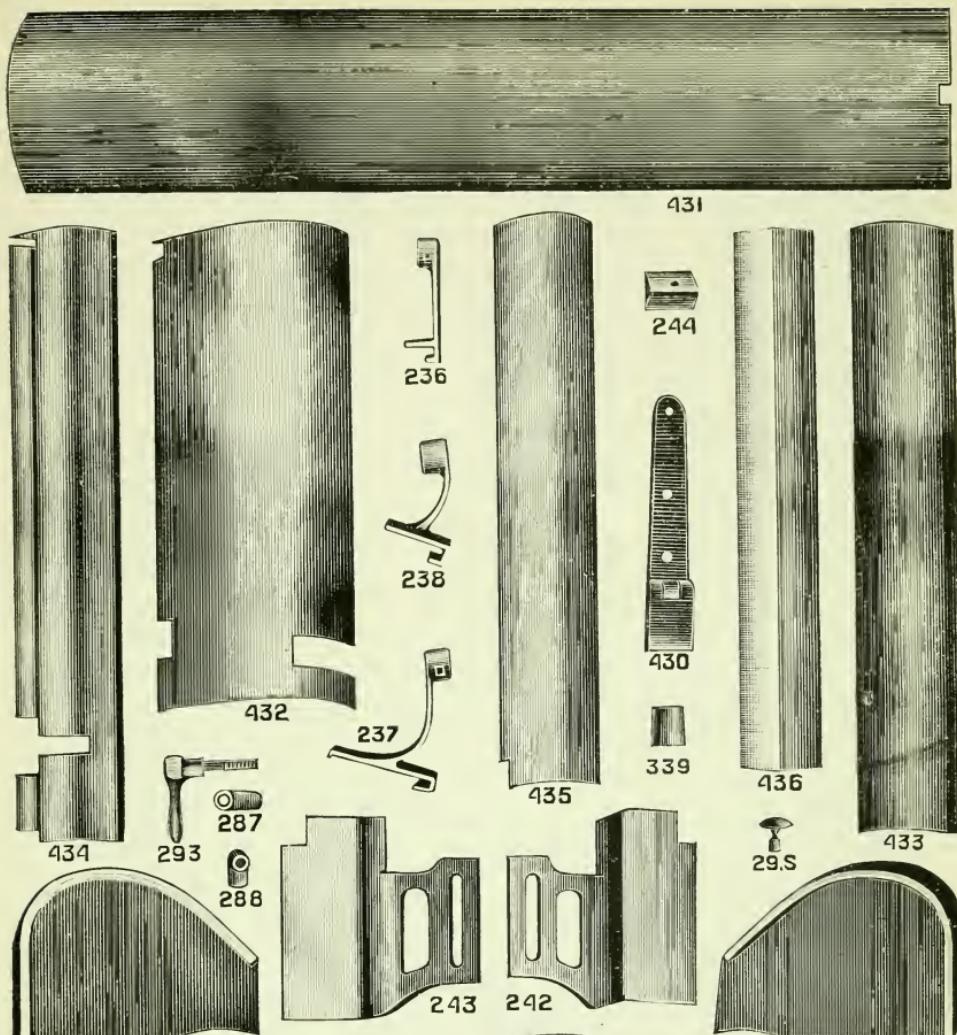
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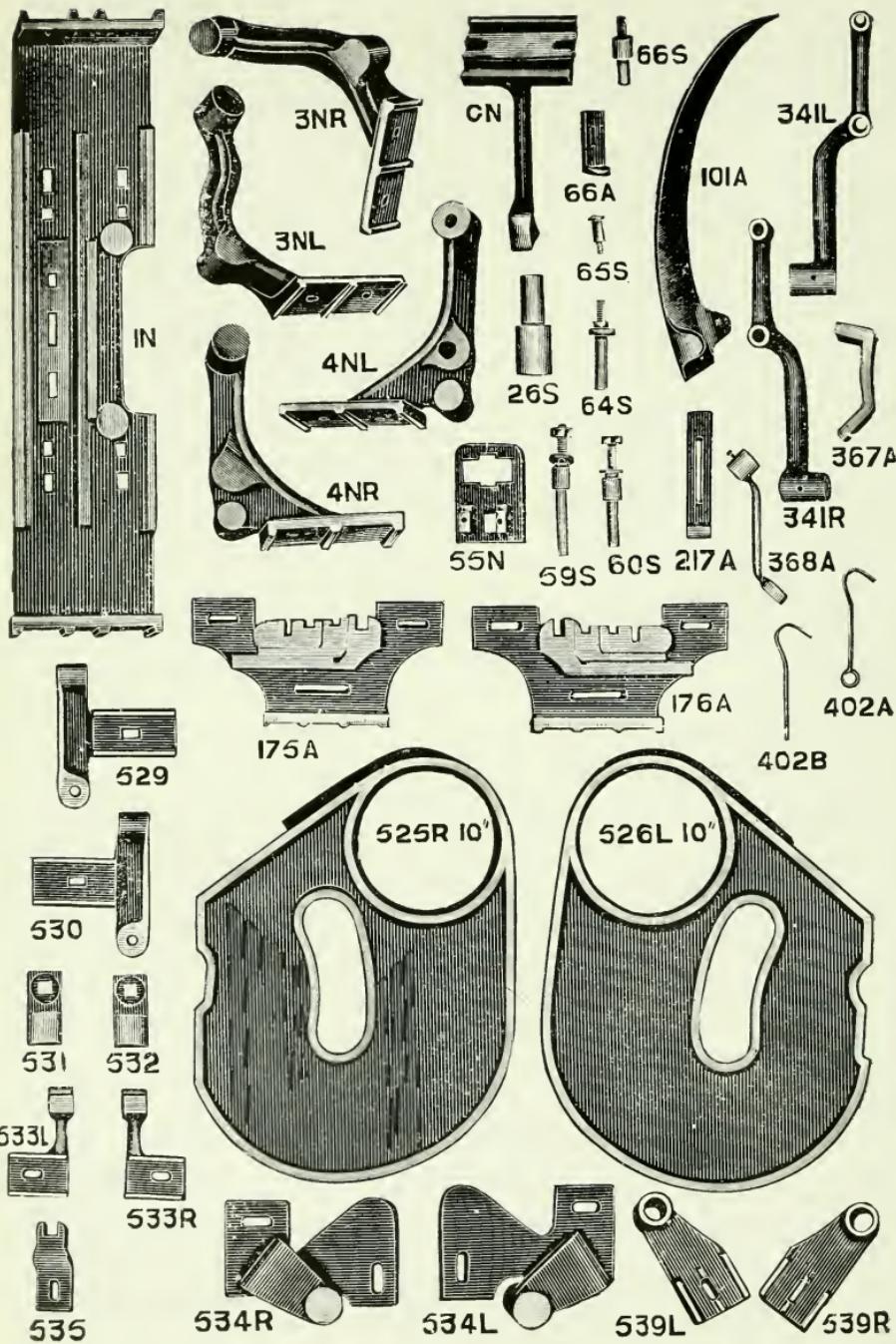


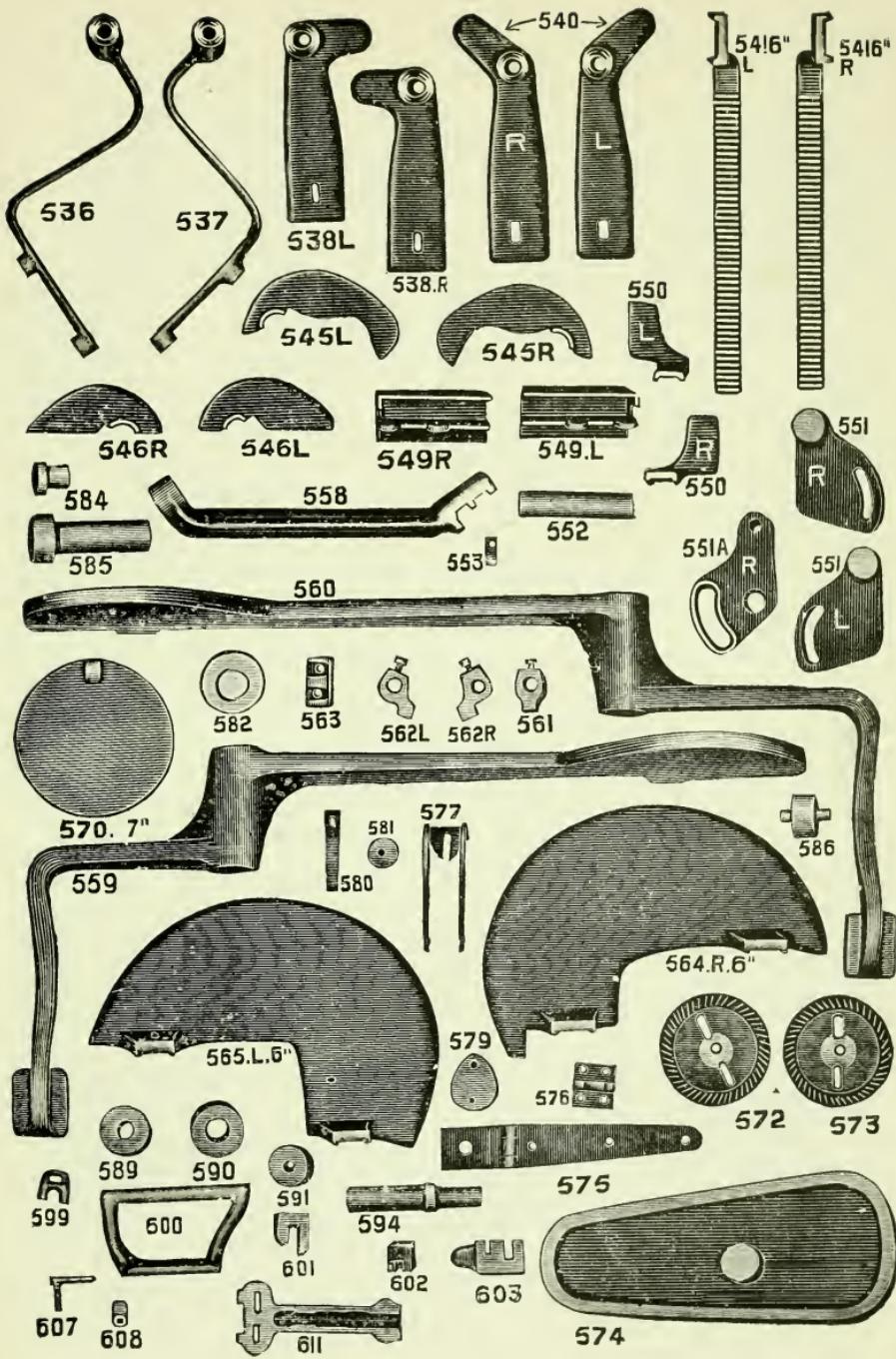


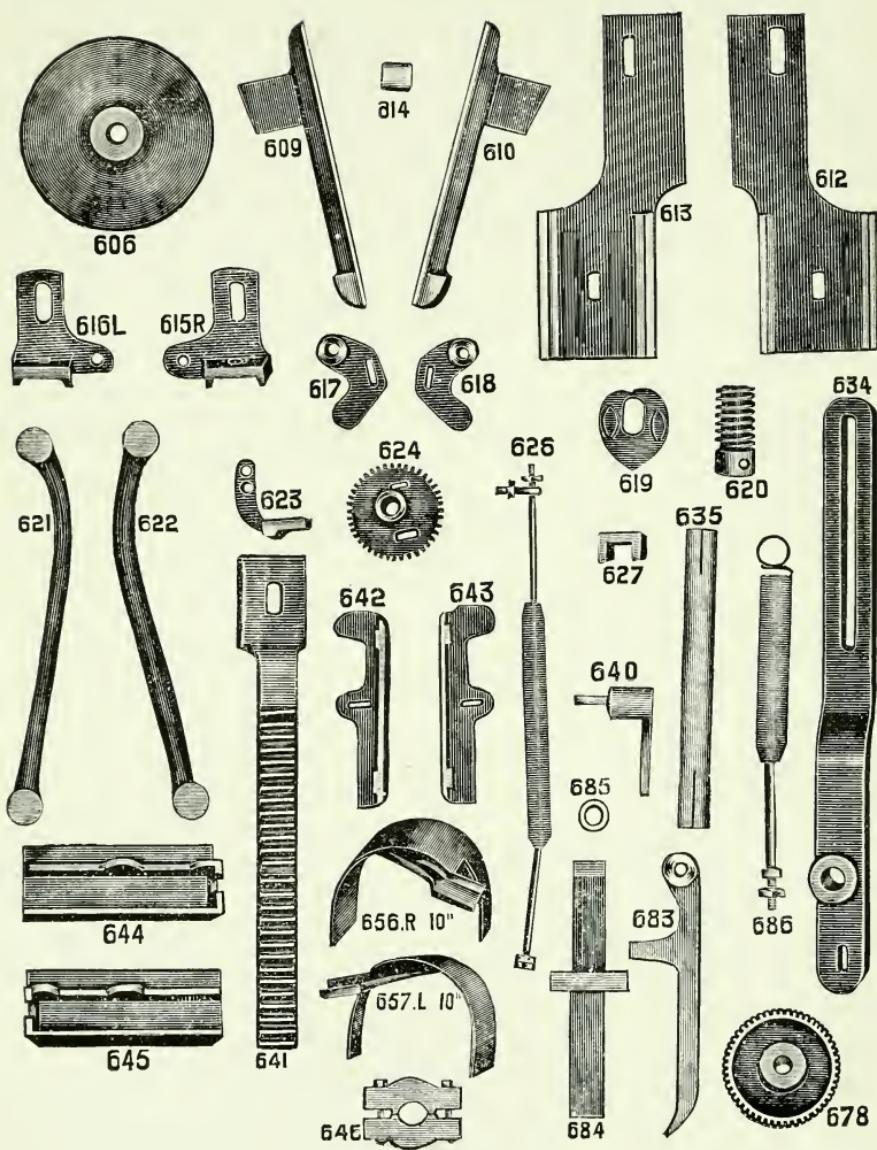




32.S.	23.S.	105.106.	36.S.	30.S.
28.S	25.S	31.S.	37.S.	10.S.
27.S	22.S.	21.S.	39.S.	24.S.
524	6.S.	9.S.	41.S.	11.S.
33.S.	4.S.	3.S.	42.S.	1.S.
18.S.	5.S.	35.S.	40.S.	2.S.
26.S.	7.S.	20.S.	34.S.	14.S.
16.S.	15.S.	38.S.	38.S.	13.S.
17.S.	19.S.	34.S.	34.S.	
19.S.	8.S.	38.S.	38.S.	







DETAILS FOR SPEED FRAMES.

NOTE.—In ordering Sundries for Frames, kindly state the Hand and Lift of the Frame for which they are required.

- A. Frame End
- B. Off End
- C. Gearing End Spring Piece
- D. Second Spring Piece
- E. Middle " "
- F. Sheet Iron Door
- G. Spring Piece Rack, R.H.
- H. " " L.H.
- 1. Inside Fender, 7in. and 10in.
- 2. " " 12in.
- 3A. Top Fender Bracket
- 4A. Bottom " " with Boss
- 5A. " " " without Boss
- 6A. Swan Neck Bracket, 7in. and 10in.
- 7. Socket Collar
- 8A. Swan Neck Bracket, 12in.
- 9. Chain Bracket, R.H.
- 10. " " L.H.
- 11. Reversing Shaft Clutch Bracket
- 12. " " Fork
- 13. Gearing End Rail Bracket
- 14. Compound Carrier Bracket
- 15N. Bottom Cannon Bracket, R.H.
- 16N. " " " L.H.
- 17. Bottom Cone Connecting Rod, 7in.
- 18. " " " 10in.
- 19S. " " Swing, R.H.
- 20S. " " " L.H.
- 21. " " Pedestal

22. Reversing Rod End
 23. Outside Fender, R.H.
 24. " " L.H.
 25. Lever for Bottom Cone Swing
 26. Reversing Rod Bearing
 27. Bottom Cone Lifting Handle
 28. " " " Bracket
 29. " " " "
 30. Gearing End Lifter Shaft Bracket, 6in. R.H.
 31. " " " " " 6in. L.H.
 32. " " " " " 7in. and 8in. R.H.
 33. " " " " " 7in. and 8in. L.H.
 34. " " " " " 10in. and 12in. R.H.
 35. " " " " " 10in. and 12in. L.H.
 36. Motion Rail
 37. Cradle Bracket
 38. Cradle
 39. Fork Lever
 40. Cradle Catch
 41. "
 42. Bottom Catch, R.H.
 43. " " R.H.
 44. " " L.H.
 45. " " L.H.
 46. Upright Shaft Bracket
 47. Motion Rail "
 48. "
 49L. Gearing End Driving Shaft Bracket, L.H.
 49R. " " " " " R.H.
 50. Off " " " " " R.H.
 51. " " " " " L.H.
 52. Long Rack
 53. Long Rail
 54. " " Bracket, 7in.
 55. " " " 10in.
 56. " " Elbow Bracket, R.H.
 57. " " " " L.H.
 58. Strap Guide for Cones, 6in.

59. Strap Guide for Cones, 7in.
 60. " " " 10in.
 61. " " " 12in.
 62. Cone Strap Fork
 63. " " "
 64. " " "
 65. " " "
 66. Cone Strap Stop
 67. " " Cross Bar
 68. Long Rack Slide
 69. " " Bracket, 7in.
 70. " " " 10in.
 71. T Bracket
 72. Monkey Tail, 6in. and 7in.
 73. " " 10in.
 74. " " 12in.
 75. Traverse Lever, 7in.
 76. " " 10in.
 77. Knocking-off Lever
 78. Bird Cage Rail Bracket, 7in.
 79. " " " " 10in.
 80. " " Angle Bracket
 81. " " " "
 82. Bird Cage
 83. Outside Top Cone Bracket, R.H.
 84. " " " " L.H.
 85. " " " " Fine Jack. R.H.
 86. " " " " " " L.H.
 87A. Middle Top Cone Bracket
 88. Off End " " " and Guard, R.H.
 89. " " " " " " L.H.
 90. Gearing End Angle Iron Bracket, R.H.
 91. " " " " L.H.
 92. Hexagon Weight
 93. Twist Carrier Bracket, 7in., R.H.
 94. " " " 7in., L.H.
 95. " " " 10in., R.H.
 96. " " " 10in., L.H.

97. Swing Arm
 98. " " Cap
 99. Elbow Motion
 100. " " Cap
 101. Spur Wheel Guard, R.H.
 102. " " " L.H.
 103. " " " Flap, 7in.
 104. " " " 10in.
 105. Twist Carrier Guard
 106. Twist Carrier Guard, Fine Jack
 107. Off End Cone Swing Bracket
 108. " " " Stop
 109. End Setting-on Handle, Roving, R.H.
 110. " " " L.H.
 111. Middle Setting-on Handle, Roving
 112. " " " Slubbing
 113. End Setting-on Handle, Slubbing, R.H.
 114. " " " L.H.
 115. Spring Piece Cap, Roving
 116. " " " Slubbing
 117. Long Fish Tail
 118. Short " "
 119. Long End Fish Tail, R.H.
 120. " " " L.H.
 121. " " " R.H.
 122. " " " L.H.
 123. " " " Intermediate, R.H.
 124. " " " L.H.
 125. Short End Fish Tail, R.H.
 126. " " " L.H.
 127. Bottom Spindle Shaft Bearer
 128. Top Bobbin Shaft Bearer
 129. End Top Roving Rod Bracket, R.H.
 130. " " " L.H.
 131. Middle Top Roving Rod Bracket
 132. End Bottom " " "
 133. Middle " " "
 134. Middle Creel Fixing, Roving "

135. End Creel Fixing, Roving, R.H.
 136. " " " L.H.
 137. Middle Creel Fixing, Slubbing
 138. End Bridge, R.H.
 139. " " L.H.
 140. Middle Bridge
 141. Sliver Roller Brackets, Slubbing, R.H.
 142. " " " " L.H.
 143. " " " " Off End, R.H.
 144. " " " " " L.H.
 145. " " " Small
 146. Rail Box, 7in., R.H.
 147. " " 7in., L.H.
 148. " " 10in., R.H.
 149. " " 10in., L.H.
 150. " " 12in., R.H.
 151. " " 12in., L.H.
 152. " " Lid, 7in.
 153. " " " 10in.
 154. " " " 12in.
 155. Off End Slide, R.H.
 156. " " L.H.
 157A. Carrier Stud Bracket, R.H.
 158A. " " L.H.
 159. Spindle Shaft Bracket
 160. Door Bracket
 161. Gearing End Rack, 7in.
 162. " " " 10in.
 163. " " " Guide, 7in., R.H.
 164. " " " " 7in., L.H.
 165. " " " " 10in., R.H.
 166. " " " " 10in., L.H.
 167A. Chain Pulley Bracket, R.H.
 168A. " " " L.H.
 169. Band Carrier Pulley Bracket
 170A. Rail Box Bracket
 171. " " "
 172. " " "

173. Rail Box Angle Bracket, R.H.
 174. " " " " L.H.
 175. Horse Head, R.H.
 176. " " L.H.
 177. Front Roller Bracket
 178. " " " Slide
 179. Back Roller Bracket
 180. Top Cannon, R.H.
 181. " " L.H.
 182. Broad Carrier Guard
 183. Large Panel, 6in., R.H.
 184. " " 6in., L.H.
 185. " " 7in., R.H.
 186. Large Panel, 7in., L.H.
 187. " " 10in., R.H.
 188. " " 10in., L.H.
 189. " " 12in., R.H.
 190. " " 12in., L.H.
 191. Half Circle Panel, 6in.
 192. " " " 7in.
 193. " " " 10in.
 194. " " " 12in.
 195. Bottom Door, 6in., R.H.
 196. " " 6in., L.H.
 197. " " 7in., R.H.
 198. " " 7in., L.H.
 199. " " 10in., R.H.
 200. " " 10in., L.H.
 201. " " 12in., R.H.
 202. " " 12in., L.H.
 203. Reaping Hook, 6in., R.H.
 204. " " 6in., L.H.
 205. " " 7in., R.H.
 206. " " 7in., L.H.
 207. " " 10in., R.H.
 208. " " 10in., L.H.
 209. " " 12in., R.H.
 210. " " 12in., L.H.

211. Large Panel, 8in., R.H.
 212. " " 8in., L.H.
 213. Half Circle Panel 8in.
 214. Bottom Door, 8in., R.H.
 215. " " 8in., L.H.
 216. Back Bar Collar
 217. Long Grid
 218. Balance Lever, 10in., R.H.
 219. Foot for 1st Balance Lever, 6in., R.H.
 220. " " " " 6in., L.H.
 221. " " " " 7in., R.H.
 222. " " " " 7in., L.H.
 223. " " " " 10in., R.H.
 224. " " " " 10in., L.H.
 225. " " " " 12in., R.H.
 226. " " " " 12in., L.H.
 227. Box " "
 228. Arm " "
 229. " " " " L.H.
 230. Middle Balance Lever, Roving, R.H.
 231. " " " " Fine Jack, R.H.
 232. " " " " Roving, L.H.
 233. " " " " Intermediate and Slubbing,
 R.H.
 234. " " " " Intermediate and Slubbing,
 L.H.
 235. " " " " 11in. and 12in. R.H.
 236. Bottom Sheet Iron Bearers
 237. " " " " Iron Casings
 238. Top " " " " "
 239. Middle Balance Lever, 11in. and 12in., L.H.
 240. Balance Lever, Fine Jack, R.H.
 241. " " " " L.H.
 242. Rack Box, R.H.
 243. " " L.H.
 244. " " Slide
 245. Top Rail Crab, 6in.
 246. Bottom Rail Crab, 6in.

247. Top Rail Crab, 7in.
 248. Bottom " " 7in,
 249. Top " " Off End, 7in., R.H.
 250. " " " 7in., L.H.
 251. Bottom " " " 7in., R.H.
 252. " " " 7in., L.H.
 253. Top " " 10in.
 254. Bottom " " 10in.
 255. Top " " Off End, 10in., R.H.
 256. " " " 10in., L.H.
 257. Bottom " " " 10in., R.H.
 258. " " " 10in., L.H.
 259. Top " " 12in.
 260. Bottom " " 12in.
 261. Top " " Off End, 12in., R.H.
 262. " " " 12in., L.H.
 263. Bottom " " " 12in., R.H.
 264. Bottom Rail Crab, Off End, 12in., L.H.
 265. Top " " Sheet Iron Casings, 7in.
 266. Bottom " " " " 7in. and 10in.
 267. Top Rail Crab, Sheet Iron Casings, 10in.
 268. " " " " " Off End, 7in.,
 R.H.
 269. Top Rail Crab, Sheet Iron Casings, Off End, 7in.,
 L.H.
 270. Bottom Rail Crab, Sheet Iron Casings, Off End,
 7in. and 10in., R.H.
 271. Bottom Rail Crab, Sheet Iron Casings, Off End,
 7in. and 10in., L.H.
 272. Top Rail Crab, Sheet Iron Casings, 10in., R.H.
 273. " " " " " 10in., L.H.
 274. Bottom Rail Bracket, Middle
 275. " " " Off End, R.H.
 276. " " " " " L.H.
 277. " " " " " R.H.
 278. " " " " " L.H.
 279. " " " " " R.H.
 280. " " " " " L.H.

281. Brake, 6in., R.H.
 282. " 6in., L.H.
 283. " 7in., R.H.
 284. " 7in., L.H.
 285. " 10in., R.H.
 286. " 10in., L.H.
 287. Bottom Door Catch
 288. Frame Plate Catch
 289. Brake, 12in., R.H.
 290. " 12in., L.H.
 291. Brake Spring Bracket, R.H.
 292. " " L.H.
 293. Panel Handle
 294. Roller Stand, 1 $\frac{1}{2}$ in. wide
 295. " " 1 $\frac{1}{4}$ in. "
 296. " " 1 $\frac{1}{8}$ in. "
 297. " " Bottom Slide, 1 $\frac{1}{2}$ in. wide
 298. " " " " 1 $\frac{1}{4}$ in. "
 299. Roller Stand, Bottom Slide, 1 $\frac{1}{8}$ in. wide
 300. " " Top Slide, 1 $\frac{1}{2}$ in. wide
 301. " " " " 1 $\frac{1}{4}$ in. "
 302. " " " " 1 $\frac{1}{8}$ in. "
 303. Top Rail Cross Slide, Straight, 7in., R.H.
 304. " " " " " 7in., L.H.
 305. " " " " Cranked, 7in.
 306. " " " " " 7in., R.H.
 307. " " " " " 7in., L.H.
 308. " " " " " 7in., R.H.
 309. " " " " " 7in., L.H.
 310. " " " " " 7in., R.H.
 311. " " " " " 7in., L.H.
 312. " " " " Straight, 8in., R.H.
 313. " " " " " 8in., L.H.
 314. " " " " Cranked, 8in., R.H.
 315. " " " " " 8in., L.H.
 316. " " " " Straight, 10in., R.H.
 317. " " " " " 10in., L.H.
 318. " " " " " 10in., R.H.

319. Top Rail Cross Slide, Straight, 10in., L.H.
 320. " " " " Cranked, 10in.
 321. " " " " " 10in., R.H.
 322. " " " " " 10in., L.H.
 323. " " " " " 10in., R.H.
 324. " " " " " 10in., L.H.
 325. " " " " " 10in., R.H.
 326. " " " " " 10in., L.H.
 327. " " " " " 10in., R.H.
 328. " " " " " 10in., L.H.
 329. " " " " Straight, 12in., R.H.
 330. " " " " " 12in., L.H.
 331. " " " " Cranked, 12in., R.H.
 332. " " " " " 12in., L.H.
 333. " " " " " 1in., 10in., R.H.
 334. " " " " " 1in., 10in., L.H.
 335. Extra Twist Carrier Guard, 10in., R.H.
 336. " " " " 10in., L.H.
 337. " " " " 7in., R.H.
 338. " " " " 7in., L.H.
 339. Cup for Sheet Iron Casing
 340A. Beam Bracket for Back Sheet Iron
 341L. Traverse Rod Bracket, R.H.
 342. " " " L.H.
 343. Traverse Lever for Revolving Top Clearers
 344R. Twist Carrier Bracket, 11in., R.H.
 344L. " " " 11in., L.H.
 345. Rail Bracket for Clearer Traverse Motion
 346. New Bobbin Box Bracket
 347. Top Rail Cross Slide, New Straight, 11in., R.H.
 348. " " " " " 11in., L.H.
 349. Strap Fork without boss
 350. " " " with boss
 351. Twist Carrier Bracket, 6in., R.H.
 352. " " " 6in., L.H.
 353. Traverse Rod Bracket
 354. Stay for Bottom Cone Bracket, 7in.
 355. " " " " " 7in.

356. Stay for Bottom Cone Bracket, 10in.
 357. " " " 10in.
 358. Angle Bracket for Bottom Cone Bracket
 359. Bowl Bracket for Clearer Traverse Motion
 360. 40T. Carrier Stud Bracket
 361. End Division Plate Bracket, R.H.
 362. " " " L.H.
 363. Middle " " "
 364. Draft Wheel Guard, R.H.
 365. " " " L.H.
 366. Hank Indicator
 367. Bracket for Hank Indicator
 368. Finger for Revolving Top Clearer
 369. Notch for Steady Pin for Revolving Top Clearer
 370. Lock Stop Motion, Box, R.H.
 371. " " " L.H.
 372. " " " Box Lid, R.H.
 373. " " " L.H.
 374. " " " Battle Axe, 7in.
 374^L. " " " 10in.
 375. " " " Catch, R.H.
 376. " " " L.H.
 377. " " " Slide Bar Bracket, with knob
 378. " " " " without knob
 379. " " " Notch, with knob
 380. " " " without knob
 381. Extra Swing Arm, 10in.
 382. " " " 7in.
 383. " " " Cap
 384. T Slide for Clearer Traverse Motion
 385. Finger for Rod for Revolving Top Clearers
 386. Beam Coupling
 387. Back Roller Weight, Intermediate Frame
 388. Front " " "
 389. Back " " " Roving and Slubbing Frames
 390. Front " " "
 391. Spring for Revolving Top Clearer Traverse Motion
 392. Stand Cap for Front Roller

393. Gearing End Middle Roller Slide (Brass)
 394. Middle Finger Back
 395. Stand " "
 396. H Slide without nib for Finger
 397. " with
 398. Under Clearer Weight "
 399. Top Roller Saddle
 400. Front Weight Hook
 401. Stirrup for Roller Weight
 402. Weight Wire
 403. Roller Beam
 404. Cast Iron Top Clearer
 405. Back Bar for Fingers
 406. Traverse Rod
 407. Spindle Rail
 408. Coupling Plate for Spindle Rail
 409. 84lb. Balance Weight
 410. 66lb. " "
 411. Bottom Cone "
 412. Top "
 413. Fly Wheel
 414. Loose Pulley
 415. Fast "
 416. Differential Motion Box
 417. Box Lid
 418. 92T. Internal Wheel
 419. 23T. Long Boss Wheel
 420. 14T. Steel Pinion
 421. 35/20T. Compound Wheel
 422. 33T. Spur Wheel
 423. 23T. or 27T. Hollow Wheel
 424. 58T. or 50T. Spur Wheel
 425. Bush for Gearing End Driving Shaft Bracket
 426. Off " " " "
 427. Loose Pulley Bush " " "
 428. Brake Spring
 429. Spring for Lock Stop Motion
 430. Hinge for Locking Door

431. Sheet Iron Cover for Cones
 432. " " " Back of Spindle Wheels
 433. " " " Bobbin Wheels
 434. Bottom Sheet Iron Cover for Spindle Wheels
 435. Front Bright Cover for Spindle and Bobbin Wheels
 436. Bottom Sheet Iron Cover for Bobbin Wheels
 437. Spring Bar for Shortening Motion
 438. Bottom Spring "
 439. Cradle Catch Spring
 440. Spring for Ratchet Wheel Catch
 441. 5-link Chain for Shortening Motion
 442. 4-link "
 443. Screw for Chain for " "
 444. Hook "
 445. Gearing End Balance Weight "
 446. Long Socket for Spindle
 447. Nut for Long Socket
 448. Common Footstep
 449. Long Single Hole Footstep
 450. " Double "
 451. Chased "
 452. Bobbin Wheel "
 453. Spindle Wheel
 454. Skew Bevel, R.H.
 455. " L.H.
 456. Coupling Skew Bevel, R.H.
 457. " " L.H.
 458. Gearing End Balance Weight Chain
 459. Back Sliver Roller End for Slubbing Frame (She)
 460. " " " " " (He)
 461. Creel Angle Iron
 462. Stop Rod and Coupling
 463. Creel Pillar
 464. Roving Rod
 465. Reversing Rod
 466. Slide Bar for Lock Stop Motion
 467. 46T. Rack Carrier Wheel
 468. 28T. " " "

469. Chain Pulley for Gearing End Balance Weight
 470. 48T. Wheel for Long Rack
 471. Hand Wheel for Upright Shaft
 472. Broad Band Pulley for Upright Shaft
 473. 16T. Boss Bevel " "
 474. 3in. Collar " "
 475. 13, 16, or 18T. Shell Bevel "
 476. 26, 38, or 50T. Wheel for Shortening Motion
 477. 18T. Poker Wheel
 478. Poker Rack
 479. Upright Shaft for Shortening Motion
 480. Ratchet Wheel
 481. Driving Shaft
 482. Bottom Cone Shaft
 483. Top "
 484. 36, 54, or 64T. Outside Top Cone Wheel
 485. 30, 35, or 40T. Middle " "
 486. Twist Wheel
 487. Twist Carrier, 80, 110, or 120T.
 488. Twist Carrier Wheel Bush
 489. 16T. Middle Lifter Shaft Pinion
 490. 16T. Gearing End Lifter Shaft Pinion
 491. Lifter Shaft
 492. " " Coupling
 493. Middle Roller Wheel (Steel) 18T.
 494. Back " "
 495. Front " " (24T.)
 496. " " Bush
 497. 120, 130, or 140T. Front Roller Wheel
 498. 90T. Crown Wheel
 499. 70T. Broad Carrier Wheel
 500. Draft Wheel
 501. Back Roller Wheel
 502. 16, 20, or 24T. Strike Bevel
 503. 58T. Upright Bevel
 504. 77T. Reversing Bevel
 505. Lifter Change Wheel
 506. 64T. Lifter Cannon Wheel

- 507. 16T. Lifter Cannon Wheel
- 508. 80T. " Shaft "
- 509. 20T. Lineshaft Bevel
- 510. 45, 55, or 65T. Lineshaft Wheel
- 511. 40T. Carrier Wheel
- 512. 40/40, 45/30, 50/25T. Compound Carrier Wheel
- 513. 65/30, 65/40, 65 50T. Bottom Cone Compound Wheel
- 514. 46 or 54T. Driving Shaft Wheel
- 515. 43T. Elbow Motion Wheel
- 516. Spindle or Bobbin Shaft Wheel
- 517. 80 or 86T. Large Carrier Wheel
- 518. Reversing Bush
- 519. Lineshaft
- 520. Reversing Shaft
- 521. Knocking-off Fork for Lock Stop Motion
- 522. Spindle or Bobbin Wheel Shaft
- 523. Small Band Pulley
- 524. Stop Collar for Bobbin Shaft
 - 1L. Locking Door Plate, R.H.
 - 2L. " " " L.H.
 - 3L. " " Catch
 - 4L. " " Lever
 - 5L. " " Finger
 - 6L. " " Beam Bracket

ELECTRIC STOP MOTION.

- 1E. Box, R. and L.H.
- 2E. Box Lid, R. and L.H.
- 3E. Lever for Eccentric, R.H.
- 4E. " " L.H.
- 5E. L Bracket, R.H.
- 6E. " " L.H.
- 7E. Frog
- 8E. Rocking Finger
- 9E. Stop Rod Bracket

10E. Bracket to carry Eccentric, R.H.
 11E. " " " L.H.
 12E. C Bracket
 13E. Carrier Wheel Bracket
 14E. Off End Vibrator Shaft Bracket
 15E. Gearing End Vibrator Shaft Bracket
 16E. Connecting Rod
 17E. " Notch
 18E. Extra Roving Rod Bracket
 19E. Connection Bracket for Vibrator Shaft
 20E. " " Creel Pillar
 21E. Coupling Bracket for Conductor Rod
 22E. Bracket for Cut-off Spring
 23E. Vibrator
 24E. Bridge
 25E. Off End Creel Fixing
 26E. Middle "
 27E. Off End Carrier Wheel Guard
 28E. Eccentric Carrier Guard, R.H.
 29E. " " L.H.
 30E. Knock-off Lever, R. and L.H.
 31E. Setting-on Handle, R. and L.H.
 32E. Spring for Connecting Rod
 33E. Conductor Rod
 34E. " "
 35E. " "
 36E. Eccentric
 37E. Eccentric Bowl
 38E. 70T. Carrier Wheel

STUDS.

1S. Stud for Ratchet Wheel, Shortening Motion
 2S. " " Shell Bevel " "
 3S. " " Reversing Fork " "
 4S. Regulating Screw for Ratchet Wheel, Shortening Motion
 5S. $\frac{1}{2}$ in. Spring Screw, Shortening Motion

6S. Stud for Reversing Rod End, Shortening Motion
 7S. " " Ratchet Wheel Catches " " "
 8S. $4\frac{1}{2}$ in. $\times \frac{1}{8}$ in. Pin for Reversing Fork " " "
 9S. Stud for Cradle Catches " " "
 10S. Cradle Stud for Traverse Motion Lever
 11S. Stud for Lifter Cannon
 12S. Balance Lever Pin
 13S. Long " " "
 14S. Stud for 40/40T. Compound Carrier Wheel
 15S. " " Rack Carrier Wheel
 16S. Shell Wheel Stud for Differential Motion (Intermediate and Slubbing)
 17S. Stud for 35 20T. Compound Wheel, Differential Motion
 18S. Shell Wheel Stud for Differential Motion (Roving)
 19S. Stud for Draft Wheel Cannon
 20S. " " 70T. Broad Carrier Wheel
 21S. Oil Screw for Differential Motion
 22S. Stud for Drop Lever, Lock Stop Motion
 23S. " " Small Band Pulley (Ordinary)
 24S. " " " " (Lock Stop Motion)
 25S. " " Lock Stop Motion Catches
 26S. " " Knocking-off Lever
 27S. " " Monkey Tail
 28S. " " Traverse Rod Bracket
 29S. Guard Knob
 30S. Bird Cage Stud
 31S. Pin for Slubbing Frame Handle
 32S. " " Cone Lifting Lever
 33S. Stud for Draft Wheel Guard
 34S. $\frac{5}{8}$ in. Pin for Cone Strap Fork
 35S. $\frac{5}{8}$ in. " " " " "
 36S. Stud for Connecting Rod, Electric Stop Motion
 37S. " " Cam Bowl " " "
 38S. " " Magnet " " "
 39S. " " Monkey Tail " " "
 40S. " " Cam " " "
 41S. " " Oscillating Finger " " ,

42S. Stud for Knocking-off Lever Electric Stop Motion
 1N. New Inside Fender
 3NR. Gearing End Fender Bracket, R.H.
 3NL. " " " L.H.
 4NR. Off End " " R.H.
 4NL. " " " L.H.
 6N. Middle " "
 26S. Knocking Off Lever Bush
 55N. Bracket for Long Rack
 59S. Long Stud for 50s Carrier Off End Slubber
 60S. Short " " "
 64S. $\frac{5}{8}$ in. Stud for Heywood's Traverse Motion
 65S. Button Head Stud for Heywood's Traverse Motion
 66A. Small Stop for Long Rack
 66S. Stud for Clearer Traverse Motion Bowl
 101A. Spur Wheel Guard
 175A. R.H. Gearing End Stand
 176A. L.H. " " "
 217A. Long Grid for Long Rack
 341R. Roving Rod Bracket for Revolving Clearer
 341L. " " " " "
 367A. Indicator Bracket " " " "
 368A. Guide for Revolving Clearer
 402A. Straight Weight Wire
 402B. Crossed " "
 525R. 10in. New Twist Carrier Guard
 526L. 10in. " "
 529. Gearing End Top Creel Fixing, R.H.
 530. " " " Bottom " " L.H.
 531. " " " " R.H.
 532. " " " " " L.H.
 533R. Bracket for Carrying New Spur Wheel Guard
 533L. " " " " "
 534R. Compound Carrier Brackets " " "
 534L. " " " Middle Roller Bracket "
 535. " " " " "
 536. Gearing End Traverse Rod Bracket for Revolving
 Top Clearer, R.H.

537. Gearing End Traverse Rod Bracket for Revolving Top Clearer, L.H.

538L. 6in. Off End Lifter Shaft Bracket

538R. 6in. " " " "

539L. 7in. " " " "

539R. 7in. " " " "

540RL. 10in. " " " "

541R. 6in. " " " Rack

541L. 6in. " " " "

545R. 7in. Guard for Lifter Rack "

545L. 7in. " " " "

546L. 10in. " " " "

546R. 10in. " " " "

549L. Clearer Ends

549R. " " " "

550L. Guide for Off End Rack

550R. " " " "

551R. Swivel Bracket for 50s Wheel

551L. " " " " "

551AR. " " " " "

552. Motion Bush

553. Cap for Rack Bowl Bracket

558. Extra Creel Fixing

559RH. 8in. Balance Lever

560LH. 8in. " "

561. Notch for 7in. Brake

562R. " 10in. "

562L. " 10in. "

563. Angle Iron Coupling

564R. 6in. Plate for Twist Carrier Guard

565L. " " " "

570. 7in. Round Cover for Twist Carrier Guard

572R. Split Skew Bevels

573L. " " " "

574. Off End Slubbing Guard

575. Locking Door Hinge (large)

576. " " " (small)

577. 1½in. Underclearer Spring

579. Oval Plate for Large Panel
 580. Electric Stop Motion Spring
 581. Weight Wire Washers
 582. Floor Washers
 584. Traverse Lever Bush
 585. Twist Carrier Bush
 586. Rack Bowl
 589. 1in. Collar, 2in, \times 1 $\frac{1}{2}$ in. wide
 590. 1 $\frac{1}{2}$ in. "
 591. $\frac{7}{8}$ in. " 1 $\frac{3}{4}$ in. \times 1 $\frac{1}{2}$ in. wide
 594. Short Sockets
 599. Slubbing Traverse Guide
 600. New Flat Bottom Stand
 601. Front Stand Slide, 1 $\frac{1}{2}$ in. wide
 602. Middle " " " "
 603. Back " " " "
 606. Cone End
 607. Small Handle for Twist Carrier Plate.
 608. " Catch "
 609RH. Blade for Heywood's Shortening Motion
 610LH.
 611. Centre Part for Heywood's Shortening Motion
 612RHH. Bracket for Reversing Bowls
 613LH. " " "
 614. Reversing Bowls
 615R. Traverse Motion Bracket
 616L. " " "
 617R. " " " Lever for Heart
 618L. " " " " "
 619. " " " Heart "
 620. " " " Worm
 621R. " " " Connecting Rod
 622L. " " " "
 623. Bracket for Traverse Rod "
 624. 36T. Worm Wheel
 625. Traverse Motion Spring
 626. " " " Thumb Screw
 627. Brass Step for Spindle Shaft Bracket

- 634. 6in. Traverse Lever
- 635. Tube for Coupling Bevel
- 640. Handle for Bottom Door
- 641. 6in. Box Rack
- 642RH. Clearer End for $6\frac{1}{4}$ in. Top Clearer Middle
- 643LH. " " $6\frac{1}{4}$ in. " " "
- 644RH. Outside Clearer End for $6\frac{1}{4}$ in. Clearer "
- 645LH. " " $6\frac{1}{4}$ in. "
- 646 New Pattern Coupling Clip "
- 656R. 10in. Rack Wheel Guard
- 657L. 10in. " " "
- 683 Finger for Ratchet Wheel of Bottom Cone
- 684 Gearing End Division Plate Ratchet (Broad Foot)
- 678 50^8 T. Boss Carrier Wheel, 14^8 Pitch
- 685 Bowl for Clearer Traverse Motion
- 686 Spring " " "

UMASS Dartmouth



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Details for speed frames

